Amendment to Specification

Four sentences are to be inserted into the end of paragraph [0223] on page 18. No new subject matter is added.

The last sentence of paragraph [0223] reads: "A graph similar to that of FIG. 30 may be generated based on the parameters of any given transmission system to determine the optimal pulse shape for that system and transmission distance."

Insert the following immediately after the last sentence of paragraph [0223]: "Parameters of a transmission system may include but not limited to the transmitted laser optical power, network channel spacing, the transmission line length, the transmission line dispersion, and nonlinearities of the transmission network. The desired modulation depth of the optical pulse can be obtained by selecting the bias and the drive voltage of the pulse modulator to produce optical pulses with optimal modulation depth that mitigate non-linearities of the PSK transmission line and minimize adjacent channel crosstalk wherein the optimal modulation depth is selected according to the parameters of the transmission system which may include but not limited to the transmitted laser optical power, network channel spacing, the transmission line length, the transmission line dispersion, and nonlinearities of the transmission network. The bias of the pulse modulator can be selected, for example, using an adjustable dc voltage source applied to the pulse modulator while monitoring the Q-factor or bit-error-rate of the received optical signal. Similarly, the drive voltage of the pulse modulator can be selected, for example, using a data driver electronic amplifier with an adjustable gain applied to the pulse modulator while monitoring the Q-factor or bit-error-rate of the received optical signal."

7